



# CALTRANS REGIONAL OPERATIONS FORUMS

Communicating the Value of  
Operations





# Why communicate the value?

- ▶ Compete for funding
- ▶ Gain support for TSMO as a field/practice
- ▶ Build partnerships/collaboration
- ▶ Explain what taxpayers/investors got for their money
- ▶ **What are other reasons?**





# Communicating Value

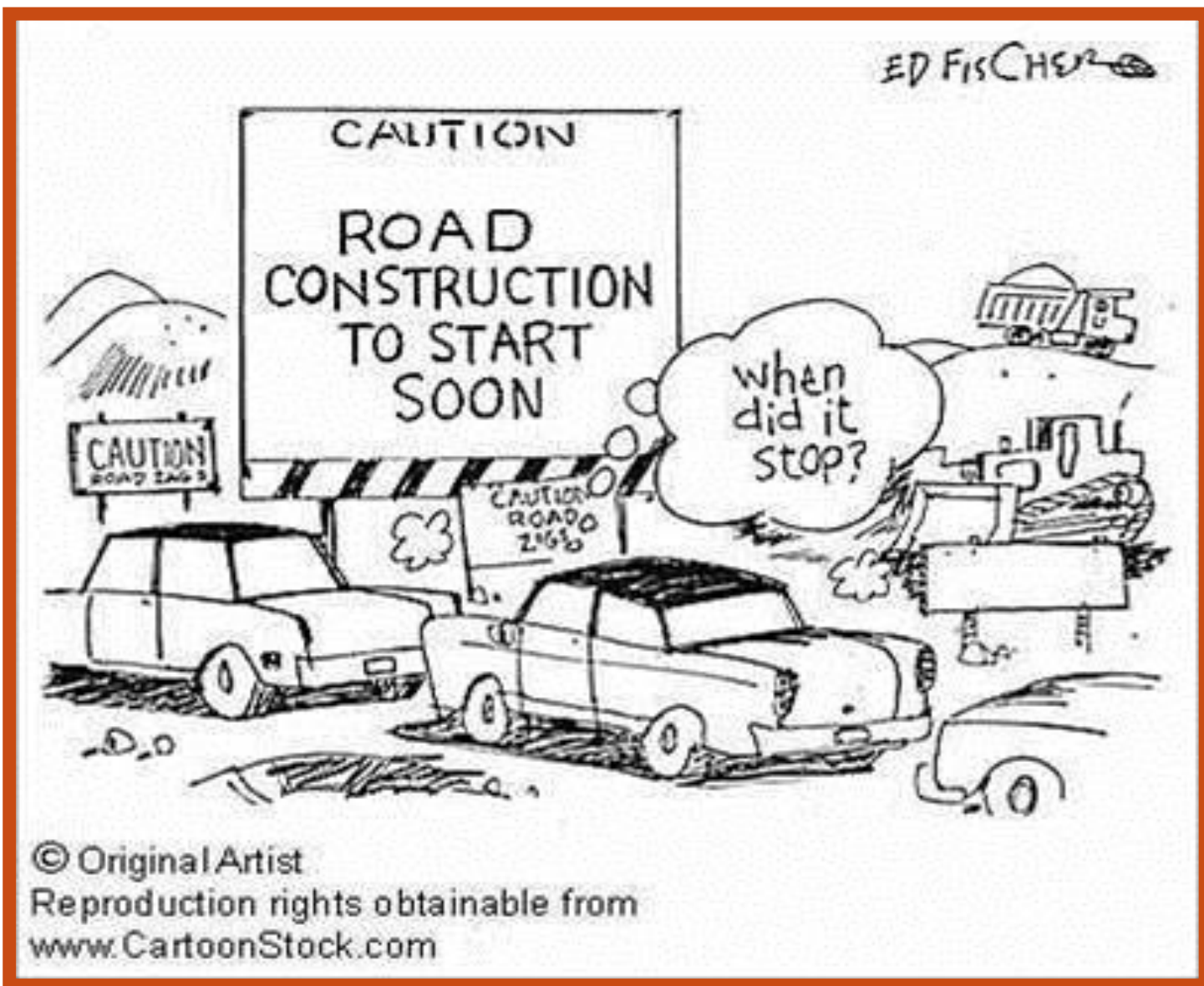
## ▶ “Value” is subjective...

- ↳ Different audiences have different views of value

## ▶ What do your stakeholders think is valuable?

- ↳ Mobility improvements and time savings
- ↳ Safety improvements
- ↳ Cost/benefit of operations vs. capital improvements
- ↳ Jobs generated or preserved
- ↳ Performance under budget
- ↳ Customer perception/strong public opinion
- ↳ Regional leveraging and partnering
- ↳ Project delivery schedules







# Challenges to Communicating the Value of TSMO

- ▶ Defining and describing TSMO
  - ↳ Still a relatively new field
  - ↳ Sprinkled across multiple transportation agency groups and divisions (TE, safety, maintenance, ops)... hard to explain that it's different and should be separate field
- ▶ Agency cultures are changing but are still rooted in a traditional construction culture
  - ↳ High value placed on delivering visible projects
- ▶ Is TSMO part of local agency culture here in District 6?
- ▶ What other challenges do you see?



# Building the Case Takes Strategy

- ▶ **Be intentional**
- ▶ **Know what you're "selling"**
  - ↳ Is TSM&O understood?
  - ↳ Is there a consistent definition?
- ▶ **Identify and collect/compile key information**
  - ↳ Facts, performance statistics, examples from other areas
- ▶ **Know your audiences**
  - ↳ Different messages for different audiences
  - ↳ Understand the impact of timing, regional priorities
- ▶ **Tell the story**





# How to Tell the Story

- ▶ TSMO-related performance measures
  - ↳ Dashboard/performance report
- ▶ Cost and benefit information for TSMO strategies
  - ↳ Local experience
  - ↳ Nationally
  - ↳ Peers
- ▶ Deployment success stories
- ▶ **What other information would be useful?**





# TSM&O Deployment Success Stories

- ▶ **What are some success stories for the SR 99 corridor? The region?**
- ▶ **Other Examples**
  - ↳ FSP testimonials from comment cards
  - ↳ Special events that went smoothly
  - ↳ Work zone management efforts like “Carmageddon”
- ▶ **Are these recognized as TSM&O in action?**



# Who is Your Audience?

- ▶ Decision makers vs. influencers vs. implementers
- ▶ Agency organizational leadership
- ▶ Other agency departments
- ▶ Elected officials
- ▶ Regional agencies
- ▶ Partner agencies
- ▶ Private sector
- ▶ Public
- ▶ Media





# I-5 Golden State Gateway

- ▶ Coalition to support improvements on I-5
  - ↳ Public, private, business leaders
- ▶ Business case emphasizes:
  - ↳ Relieving congestion and improving mobility
  - ↳ Public safety
  - ↳ Facilitate goods movement
  - ↳ Jobs and economic development
- ▶ Updates and links to current projects
  - ↳ HOV lanes and capacity expansion
  - ↳ Multimodal
  - ↳ Operating system enhancements





# Colorado – I-70 Mountain Corridor



COLORADO  
Department of  
Transportation

## CDOT focusing on a corridor to show deployment success

- ▶ Efforts spread out statewide can lose their significance
- ▶ Focus on a challenging corridor can tell a meaningful story
  - ↳ Can do enough to show the difference
  - ↳ Can provide specific examples of what TSM&O can do
- ▶ Coalition building
- ▶ End of season performance report for I-70 corridor

# Why TSM&O for CDOT?

- ▶ **486** traffic fatalities in Colorado in 2014
- ▶ **3,326** serious injury crashes in Colorado in 2014
- ▶ **49** hours of annual delay for Denver commuters
- ▶ **59%** of our system's lane miles are congested
- ▶ **\$1.6** Billion annual cost of congestion
- ▶ **\$3** Billion annual economic cost of crashes
- ▶ **22** minutes of average daily delay, **44** minutes in 2022
- ▶ Incredible impacts to health, the environment, and the economy
- ▶ ***Fixing these problems with only traditional methods is cost and time prohibitive.***

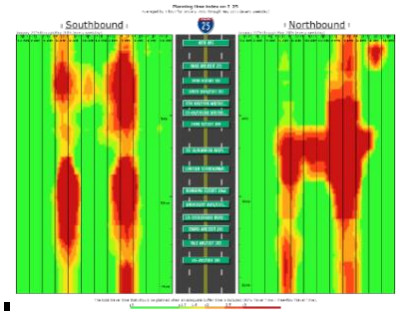


Source: Colorado DOT, 2015



# Why TSM&O for CDOT?

## TSM&O as a “Surgical Solution”

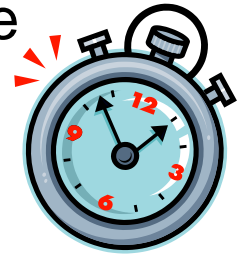


- ▶ Cost to address all the needs is astronomical
  - ↳ “Engineering” or “building” out of congestion is cost-prohibitive
- ▶ Capacity addition is a one-size-fits-all solution
- ▶ TSM&O is a surgical mitigation focused on fixing specific congestion and safety problems
  - ↳ Looks at underlying root cause, addresses with specific solutions
- ▶ Because TSM&O solutions are targeted – you get better/more measurable results for less money



# Audiences: Decision Makers/Elected Officials

- ▶ Deal with many issues - limited time to address any issue
- ▶ Their own interest areas
- ▶ Broader policy context
- ▶ Very dependent on staff
- ▶ Inter-personal relationships often key to getting things done
- ▶ Like to be given credit and recognition (shorter timetables)
- ▶ Sensitive to fiscal constraints
- ▶ Prefer “plain speak” to jargon
- ▶ Can help to get them involved - panelist at key meetings





# Packaging the Message for Agency Decision Makers

## ► Concise Facts/Numbers and Narrative

- ↳ Pros/Cons
- ↳ Costs (funding, staff)
- ↳ Benefits
- ↳ Risks



- ## ► Trade-offs: If we do that, what else can't we do?
- ## ► Consider who they rely on in making decisions (influencers)



# Packaging the Message for Elected Officials

- ▶ Focus on limited number of issues or programs that THEY can influence
  - ↳ Limited time to focus on any single issue – multiple priorities
- ▶ Focus on what will be gained by their support
- ▶ Provide the right information to the right people
  - ↳ Interpersonal relationships
  - ↳ Know the right staff
- ▶ What are the bottom line fiscal, job or economic benefit
- ▶ Consider public perception





# Audiences: Other Departments/ Functions

- ▶ Planning (DOT, MPO, local)
- ▶ Design, Project Delivery
- ▶ Information Technology
- ▶ Finance
- ▶ Communications/PIO
  - ↳ Do they understand TSM&O? the value of TSM&O?
  - ↳ Do they consider TSM&O needs when they do their jobs?
  - ↳ Can they help you get TSM&O funded? Deployed? Increase external awareness?



# Audiences: Regional Leaders

- ▶ Understand the environment in which they operate
- ▶ Demonstrate how operations can leverage regional fiscally constrained budgets/resources
- ▶ Make sure issues are easily understood and communicated
- ▶ Consider possible influence of industry leaders
- ▶ Get to the right advisory staff
  - ↳ Agency senior leaders may be a viable conduit



# Strengthening Regional TSMO Relationships

- ▶ Collaborative momentum to advance TSMO
- ▶ Leverage regional funding and resources
  - ↳ shared communications infrastructure
  - ↳ shared operations responsibilities
  - ↳ consistent approach to infrastructure selection and deployment
- ▶ “Regionalism”
- ▶ Increase visibility
  - ↳ program branding
  - ↳ highlight achievements





# Audiences: The Public

- ▶ Public is an important audience, but also an important influencer
  - ↳ Are taxpaying customers - and voters
  - ↳ Speak up on social media
  - ↳ Contact elected officials
  - ↳ Can affect Agency reputation
- ▶ Effective public outreach = effective decision maker outreach

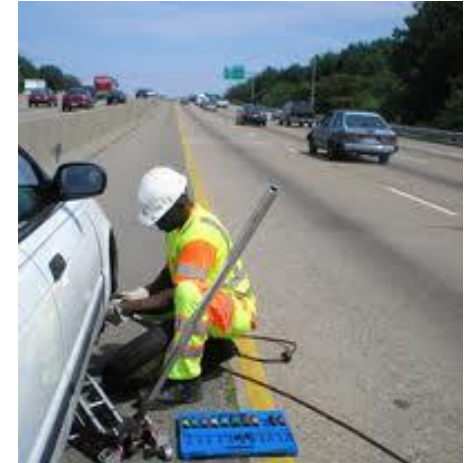




# Public/Customer Outreach

## ► Importance of customer service

- ↳ Tangible links to the public
  - ↳ Traveler Information
  - ↳ Freeway Service Patrol
- ↳ Capitalize on successes
- ↳ Address issues



## ► Tools for gauging public perception

- ↳ Social media
- ↳ Customer feedback surveys
- ↳ Process for following up on feedback



# Audiences: The Media

- ▶ Media has different objectives
- ▶ Educate media about transportation processes, and vice versa
  - ↳ Educational “Media Summits”
  - ↳ Educate new traffic reporters about available tools
  - ↳ Open house at TMC – asset/info available
- ▶ Collaborate with your PIOs
  - ↳ They have the best relationships with media outlets
  - ↳ They know what will resonate with the public





# Communicating the Value of Operations:

TOOLS and EXAMPLES



# Value of Signal Retiming - Houston

HOUSTON★CHRONICLE  
**HOUSTON**

WORLD SPORTS BUSINESS OPINION ARTS & ENTERTAINMENT LIFESTYLE  
Texas HC Investigations Special Sections Traffic Weather Obituaries

## Traffic light timing keeps congestion in sync



- ▶ 20% time savings for synchronized signals
- ▶ 20 min vs. 16 min average trip
- ▶ Reducing delay saves fuel
- ▶ 800 of 2300 timed this year
- ▶ Analysis and updates as conditions change



# High Visibility Examples

## ▶ Integrated Corridor Management

- ↳ Combines freeway, arterial and transit operations
- ↳ Collaborative operations
- ↳ Data and infrastructure sharing

## ▶ Traffic Incident Management Programs

- ↳ Transportation, Public Safety, EMS, private tow companies
- ↳ Successful in bringing partners together
- ↳ Strong link to safety

## ▶ MnDOT Shut Down of Ramp Meters





# MnDOT Ramp Meter Study

## ► Required by Legislature in 2000

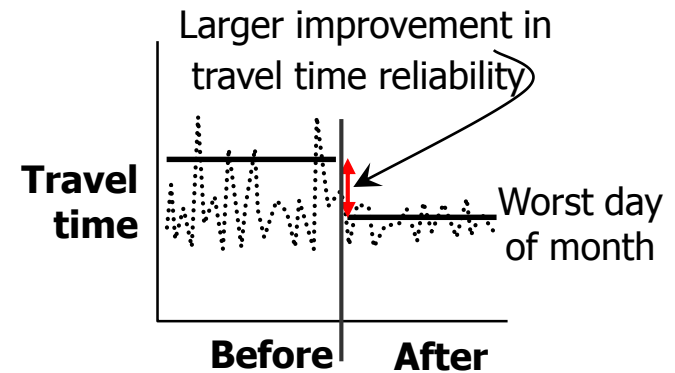
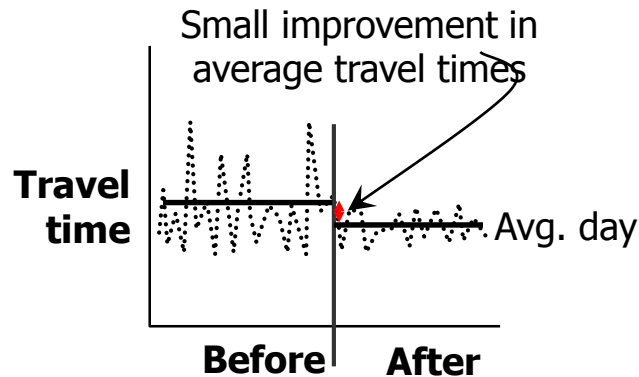
- ↳ Study effectiveness of ramp meters (RM) by conducting a shutdown study

## ► Results

- ↳ RM is cost-effective (B/C 15:1; \$40M savings; reduced TT and crashes, improved TTR)
- ↳ Public thought trips were longer and congestion was worse in study, and had more appreciation for RM
- ↳ Some optimization needed; added auto-monitoring and adjustment



# Minneapolis Ramp Meter Benefits



**When MnDOT's ramp meters were turned back on in 2000:**

↓  
22-percent decrease  
in  
average travel times

↑  
91-percent  
improvement in  
travel time reliability

# Florida DOT Newsletter

## ► Promotes/highlights different TSMO Areas

- ↳ TIM
- ↳ Traveler Info
- ↳ Freeways/expressways
- ↳ Disaster response

## ► Success stories, awards

## ► Performance measures

## ► New projects/programs

## ► New technologies



# Conveying Benefits to the Public



**REGIONAL TRANSPORTATION COMMISSION**  
Planning • Streets and Highways • Public Transportation  
Metropolitan Planning Organization

Transit Alerts: SIERRA SPIRIT, RTC INTERCITY, RTC RAPID, RTC RAPID CONNECT, 2, 3, 4, 5, 6, 7, 9, 11, 13, 14, 15, 16, 17, 18, 19, 21, 25, 26, 28, 2s, 3cc, 3CL, 54, 56, 57


 Search

[About RTC](#) | [Hot Topics](#) | [Procurement Opportunities](#) | [Safety](#) | [Transportation Choices](#) | [News Room](#)

- Public Transportation**
- Streets & Highways**
- Projects Interactive Map
- Programs
- Road Projects
- I-580 / Meadowood
- Road Conversions
- Pyramid/McCarran Intersection
- The SouthEast Connector
- Pyramid Highway / US
- 395 Connection EIS
- West Plumb Lane
- Reconstruction Project
- Roundabouts
- Traffic Signalization
- Impact Fees (RRIF)
- Orange Book

**Planning**



## STREETS AND HIGHWAYS

[HOME](#) > [Streets & Highways](#) > [Traffic Signalization](#)

[Links to Resources](#)  
[Transit News](#)  
[Special Events](#)  
[Transit Security](#)  
[Advisory Committees](#)

## Traffic Signalization

### New Phone Number to Report Traffic Signal Issues: 775-335-ROAD



RTC will operate a central traffic signal hotline for public comments about traffic signal operations in the Truckee Meadows. Reports of issues with traffic signals will be made to a one-stop shop hotline answered by RTC at 335-ROAD (335-7623). When a report is called in, the appropriate local government that operates and maintains the specific signal will be contacted.

Three agencies operate the more than 350 traffic signals in the Truckee Meadows. The City of Reno, the City of Sparks, and Washoe County each have their own signal responsibilities. Economic conditions have strained the agencies' resources for operating the signals efficiently. Since the public needs efficient traffic operations without regard to political boundaries, the RTC Board asked staff to work with local agencies to develop a proposal to coordinate regional traffic operations. In addition to the hotline, the new proposal provides local agencies with additional technical resources that will help improve traffic operations, while maintaining local control. Together with local agencies and the University of Nevada, Reno, RTC staff will identify potential traffic operations issues and propose solutions and with agency staff will review and select proposed solutions. The partners will make changes and evaluate them for effectiveness, saving money and providing for quicker and more localized response.

Currently, the City of Reno operates and maintains approximately 250 signals, the City of Sparks is responsible for 110, and Washoe County has 17. The RTC does not operate or maintain any traffic signals but retains engineering consultants to assist agencies in developing coordinated timing plans and to review signal operations. RTC staff also assists local agencies in signal timing.

- [NEW: View the RTC Traffic Signal Demonstration Video](#)
- [View the RTC Traffic Signalization video](#)
- [Traffic Signalization Fact Sheet](#)

# Communicating TSMO Value to the Public and Others – D12

Page 2

## Preferred Alternative Recommendation for I-405 Improvement Project



The I-405 carries more than 370,000 vehicles per day. Traffic volumes are expected to increase 35% by 2040.

Caltrans' priority is to achieve a safe and sustainable transportation network.

Sustainable, integrated and efficient.

Alternative 3 is consistent with the goals of the Southern California Association of Governments (SCAG) Regional Transportation Plan (RTP) and Senate Bill 375 requirements:

- Mobility and Accessibility—HOT lanes manage travel demand and offer commuters and other users more travel choices
- Congestion Management—Managed lanes provide long-term mobility by preserving a part of the roadway for assured free-flow operation
- Managed Lanes Network—Meets goals of RTP's Managed Lanes Network; closes Managed Lanes Interconnectivity gaps to provide access to all part of the region
- Transportation Demand Management—Incentivizes carpooling, vanpooling and use of transit; reduces dependence on solo travel
- Greenhouse Gas Reductions—Improved system performance generated by managed lanes improves air quality and greater roadway and vehicle efficiency

Sustainability and enhancing California's economy.

Regional population and employment growth is expected to continue. Therefore, demand for goods and services throughout the region will also increase.

- Maximizing travel time savings and reducing congestion allow businesses to operate more efficiently and maintain their competitiveness.
- Alternative 3 provides safe and reliable movement of goods and services, including services from emergency responders.
- Alternative 3 adds a new general purpose lane in each direction with an added benefit and choice of a free flow lane for many years to come.

Caltrans and OCTA have worked together in collaboration and partnership for more than two decades in finding solutions to the many challenges facing the State Highway System in Orange County.

Caltrans' statutory authority over the State Highway System entails a responsibility for sustainable improvements on the system. Caltrans is complementing M2 by optimizing system performance. Alternative 3 connects the I-405 Managed Lanes corridor directly to SR-73-I-605 and the existing toll road network in Orange County.



Caltrans District 12

Public Information  
(949) 724-2000

[www.dot.ca.gov/d12](http://www.dot.ca.gov/d12)

[caltransD12](https://www.facebook.com/caltransD12)

[@caltrans12](https://twitter.com/caltrans12)



Vision: A performance-driven, transparent and accountable organization that values its people, resources and partners and meets new challenges through leadership, innovation and teamwork.

Alternative 3 is consistent with the goals of the Southern California Association of Governments (SCAG) Regional Transportation Plan (RTP) and Senate Bill 375 requirements:

- Mobility and Accessibility—HOT lanes manage travel demand and offer commuters and other users more travel choices
- Congestion Management—Managed lanes provide long-term mobility by preserving a part of the roadway for assured free-flow operation
- Managed Lanes Network—Meets goals of RTP's Managed Lanes Network; closes Managed Lanes Interconnectivity gaps to provide access to all part of the region
- Transportation Demand Management—Incentivizes carpooling, vanpooling and use of transit; reduces dependence on solo travel
- Greenhouse Gas Reductions—Improved system performance generated by managed lanes improves air quality and greater roadway and vehicle efficiency

Sustainability and enhancing California's economy.

Regional population and employment growth is expected to continue. Therefore, demand for goods and services throughout the region will also increase.

- Maximizing travel time savings and reducing congestion allow businesses to operate more efficiently and maintain their competitiveness.
- Alternative 3 provides safe and reliable movement of goods and services, including services from emergency responders.
- Alternative 3 adds a new general purpose lane in each direction with an added benefit and choice of a free flow lane for many years to come.

Caltrans and OCTA have worked together in collaboration and partnership for more than two decades in finding solutions to the many challenges facing the State Highway System in Orange County.

Caltrans' statutory authority over the State Highway System entails a responsibility for sustainable improvements on the system. Caltrans is complementing M2 by optimizing system performance. Alternative 3 connects the I-405 Managed Lanes corridor directly to SR-73-I-605 and the existing toll road network in Orange County.



/ Kimley»Horn

# Working with the Media

berkeleyside.com

<http://www.berkeleyside.com/2015/07/28/coming-soon-less-traffic-with-a-smart-interstate-80/>

## Coming soon: Less traffic with a smart Interstate 80

By Frances  
Dinkelspiel

July 28, 2015 7:00  
am



When the I-80 Smart Corridor Project is completed in late 2015, motorists will see signs telling them about the traffic flow before them. Photo: Smart Corridor Project

Motorists driving south on Interstate 80 near Gilman might have been surprised recently by a new sign with flashing "Xs," yellow and green arrows, or a "30" or "55."

The sign is part of the I-80 Smart Corridor Project, an ambitious and technologically advanced \$79 million endeavor to smooth the travel of the 270,000 cars that traverse from the Carquinez Bridge to the Bay Bridge each day.

That stretch of road is frequently regarded as the worst in the Bay Area. Driving the eight miles from Richmond to Emeryville can take as little as 20 minutes or more than an hour, according to transportation planners.

To alleviate that congestion, Caltrans, along with local county transportation agencies, is constructing a network of integrated electronic gantries that will provide real time traffic information that has been collected by sensors and cameras on the freeway and nearby roads. In addition, Caltrans is adding 44 metered on-ramps and signs on auxiliary streets like San Pablo Avenue.



**I-80 SMART  
Corridor Project**



# Using Soundbites

- ▶ TSMO strategies help address congestion in the near term at a lower cost than options which require additional pavement
- ▶ Traffic signal timing is rated one of the most cost-effective urban transportation improvements
- ▶ Strategies that improve traffic flow and reduce congestion also reduce emissions and improve air quality
- ▶ It is important to make the most effective use of the *existing* infrastructure before adding capacity
- ▶ Providing real-time information to travelers allows them to make choices about when and how they travel



# Using Key Facts/Data

- ▶ Cost of adding lanes to an existing highway can be more than 10 times the yearly cost of effective management
- ▶ Electronic toll collection can yield substantial savings in travel time: 10 to 30% participation rate in ETC yielded B/C ratios from 2:1 to 3:1
- ▶ Traffic signal optimization can decrease delay substantially (13% to 94%) while improving safety at a fraction of the cost of infrastructure capacity expansion
- ▶ Congestion costs the average traveler an extra 38 hours of travel time and 26 gallons of fuel each year



# Using Visuals



*California Department of Transportation  
Mobility Performance Report 2010*

DISTRICT 12 BOTTLENECKS AND CONGESTED SEGMENTS, PM PEAK PERIOD





# More Tools for Communicating the Value of Operations

- ▶ Annual reports and dashboards
- ▶ Social media to promote success stories
  - ↳ Share TSMO achievements and performance statistics
  - ↳ Announce new programs and services
  - ↳ Track 'likes' and re-tweets for specific features and stories
  - ↳ Partner with PIO
- ▶ Infographics
- ▶ Executive/Decision Maker Edition of Materials



# Green Light Lincoln

- ▶ TSMO initiative in Lincoln, NE
  - ↳ Explaining the initiative
  - ↳ Making the case for it

■ 5.5 Billion Hours



**Goal of TMMP**

**LINCOLN**  
PUBLIC WORKS AND UTILITIES

New Technologies  
New Operations

The goal of the Traffic Management Master Plan is to document the improvements necessary to deploy a modern system that provides value, sustainability, and improved quality of life, for the Citizens of Lincoln.



## Selling Itself



## GREEN LIGHT LINCOLN™

IT'S GO TIME

- New signal system management software and hardware
- New intersection detection systems
- New traffic signal displays and signal phasing alternatives
- Deployment of Intelligent Transportation Systems
- Formal signal optimization (re-timing) program, corridor wide
- Improved traffic monitoring and incident management capabilities
- Reduced travel times, delays, and stops
- Reduced vehicle emissions, and pollutants
- Less fuel used, and savings at the pump
- Reduction in number and severity of crashes
- Smoother traffic flow, and less driver frustration
- Delaying the need for major capacity improvement project expenditures



# Tailoring to the Specific Audience

- ▶ **Decision-maker:** TIM can decrease incident duration by 30% to 40%
- ▶ **Implementer:** Combined traveler info and TIM can increase peak period freeway speeds 8 to 13%, reduce crash rates, and improve reliability by 1 to 22%
- ▶ **Public:** Every minute a freeway lane is blocked, there is at least a 10-minute backup after the incident is cleared
- ▶ **First responders, Safety staff:** Likelihood of a secondary crash increases by 2.8% for each minute the primary incident continues

For sound bites and key facts, see SHRP2 L17 Business Case Primer - Communicating the Value of Transportation Systems Management and Operations



# Resources

- ▶ SHRP2 L17 Business Case Primer: Communicating the Value of Transportation Systems Management and Operations
- ▶ SHRP2 L31 “CEO” focused presentation: *Operations in the 21<sup>st</sup> Century DOT: Meeting Customer Expectations* and guide book
- ▶ FHWA Operations Story (FHWA-OP-04-059)
- ▶ AASHTO Subcommittee on Transportation Communications
  - ↳ New tools and strategies (incl. social media)



# Resources: National Operations Center of Excellence

- ▶ THE place to go for TSMO information and peer exchange
- ▶ Launched January 2015
  - ↳ Collaboration of AASHTO, ITE, ITSA with support from FHWA
- ▶ Website and Technical Services Program
  - ↳ **“Why TSMO?” business case info**
  - ↳ Technical resources
  - ↳ Calendar of events from many sources
  - ↳ Discussion forums
  - ↳ Peer exchanges
  - ↳ Webinars
  - ↳ Case studies, and much more



[www.transportationops.org](http://www.transportationops.org)